

LETTERS to the Editor

Pupil Size in Heat Stroke

TO THE EDITOR: In the excellent Medical Staff Conference review of heat stroke (West J Med 121:305-312, Oct 1974), the patient described in the case summary was observed on initial physical examination to have dilated pupils. Although this finding has been reported by others, in a retrospective study of six patients treated at the San Francisco General Hospital for heat stroke between 1962 and 1974, three were found to have had pinpoint pupils on admission. Five of the six patients arrived in the Emergency Room comatose. Two of the six patients died and four of the six experienced lengthy and complicated clinical course. Three patients developed disseminated intravascular coagulopathy and two experienced focal seizures. Decerebrate posturing was also noted in two of the three patients with pinpoint pupils; diarrhea was observed in all three.

The mechanism of these variable pupil effects is unknown and, despite the numerous studies on heat stroke, we could only find one study which had made any consistent observations of pupil size.¹ In this study of thirty patients, five had pinpoint pupils, seven had dilated pupils, and eighteen had normal sized pupils. In the patients with pinpoint pupils a positive association between deep coma and a high temperature on admission was made.

Therefore, from our limited experience with heat stroke and the somewhat meager evidence in the literature,^{1,2} we feel that heat stroke must be included in the differential diagnosis of any comatose patient presenting with constricted pupils.

GORDON G. MCGUIRE, PHARM D
ROBERT A. SCOTT, MD
THEODORE G. TONG, PHARM D
CHARLES E. BECKER, MD
San Francisco General Hospital

REFERENCES

1. Kumar P, Rathore CK, Nagar AM, et al: Hyperpyrexia with special reference to heat stroke. *J Indian M Assoc* 43:213-219, Sep 1, 1964
2. Gottschalk PG, Thomas JE: Heat stroke. *Mayo Clin Proc* 41:470-482, Jul 1966

More on Oral Contraceptives

TO THE EDITOR: Swerdloff et al have presented a most impressive article, "Complications of Oral Contraceptive Agents—A Symposium" (Swerdloff RS, Odell WD, Bray GA, et al: West J Med 122: 20-39, Jan 1975). Attention should be called to the complication of oral contraceptives that they did not discuss and which is highly relevant clinically. The complication I refer to is that of emotional disturbance—primarily depression. As early as 1967¹ oral contraceptives were implicated in causing significant emotional disturbance and in 1968 several authors^{2,3} called attention to the association of oral contraceptives and depression. Given the large number of women at risk even a very low incidence of oral contraceptive related depression becomes an important issue. Given reported figures of 6.6 percent^{4,5} of women developing depression on "the pill" the matter assumes major importance. A series of studies have questioned this^{6,7} or placed it in the "psychological" realm⁸ yet, recent evidence seems to clearly indicate that for some women (especially those with a history of depressive disorder or depression during pregnancy) oral contraceptives will reactivate depressive symptoms. That evidence has been found primarily in the British literature⁹⁻¹¹ and indicates clearly that tryptophan metabolism is altered in some women while on oral contraceptives, is associated with relative or absolute pyridoxine deficiency, and is accompanied by depressive signs and symptoms. Further that treatment of depressed women taking oral contraceptives and found to be vitamin B₆ deficient with supplementary pyridoxine significantly relieved depressive symptoms in all cases. Bray in his discussion covers Spellacy's work on carbohydrate metabolism well but necessarily did not include his work on B₆ metabolism.¹² In any case, some women on oral contraceptives will develop pyridoxine deficiency and clinical depression and this requires our attention as physicians—especially since the response to treatment is impressive.

LETTERS

An excellent review article by Winston can be found in the *American Journal of Psychiatry* 130: 1217-1221, November 1973.

DON A. ROCKWELL, MD
University of California, Davis

REFERENCES

1. Daly RJ, Kane FJ, Ewing JA: Psychosis associated with the use of a sequential oral contraceptive. *Lancet* 2:444-445, 1967
2. West J: Mood and the pill. *Br Med J* 4:187-188, 1968
3. Grant ECG, Pryse-Davies J: Effect of oral contraceptives on depressive mood changes and on endometrial monamine oxidase and phosphatases. *Br Med J* 3:777-780, 1968
4. Herzberg BN, Johnson AL, Brown S: Depressive symptoms and oral contraceptives. *Br Med J* 4:142-145, 1970
5. Herzberg BN, Coppen A: Changes in psychological symptoms in women taking oral contraceptives. *Br J Psychiatry* 116:161-164, 1970
6. Goldzieher JW, Moses LE, Averkin E, et al: Nervousness and depression attributed to oral contraceptives—A double blind placebo-controlled study. *Am J Obstet Gynecol* 111:1013-1020, 1971
7. Leeton J, Leinkram C, Stiglitz J: The relationship of oral contraception to depression. *Aust NZ J Obstet Gynecol* 11:237-240, 1971
8. Fortin JN, Wittkower ED, Paiement J, et al: Side effects of oral contraceptive medication: A psychosomatic problem. *Can Psychiatric Assoc J* 17:3-10, 1972
9. Green AR, Joseph MH, Curzon G: Oral contraceptives, depression, and amino acid metabolism. *Lancet* 1:1288, 1970
10. Stokes J, Mendels J: Pyridoxine and premenstrual tension. *Lancet* 1:1177-1178, 1972
11. Adams PW, Rose DP, Folkard J, et al: Effects of pyridoxine hydrochloride (vitamin B₆) upon depression associated with oral contraception. *Lancet* 1:897-904, 1973
12. Spellacy WN, Buhi WC, Birk SA: The effects of vitamin B₆ on carbohydrate metabolism in women taking steroid contraceptives—Preliminary report. *Contraception* 6:265-273, 1972

Medicine and Religion

TO THE EDITOR: Though there will undoubtedly be some who will disagree with your editorial (The clergy and patient care. *West J Med* 121:498-499, Dec 1974) it is a truism "that there is much the clergy can contribute to patient care."

Perhaps, the only disappointment to one who totally agrees with your suggested roles for the clergy is the absence of any suggestion to reactivate its involvement in moral guidelines. This is particularly so in the present climate of amorality which is linked directly to VD incidence. Almost all presentations about VD disguise from the public the realities of what is happening and ignore the moral issues. No other presentation than the TV production "VD Blues" has so successfully driven home the bankruptcy of significant present-day solutions to our permissiveness.

It seems reasonable to suggest that, if any in-

road is to be made in decreasing the incidence of VD, the customary (but inadequate) public health approaches should be only one portion of the attack on VD. The attack should draw its main inspiration from morality with the positive and active utilization of the clergy. To banalize religion by regarding VD as a private matter with no behavioral implications is to lose a valuable ally. This, to some, is archaic or old fashioned ("Victorian"). Yet, its effectiveness in former decades was known in our society when we were more responsive to "old" values.

Admittedly, the prestige of religion is at a low, currently. A new emphasis on the medical disadvantages of immorality would nudge the clergy. Since the old-fashioned moral guidelines were and still are based upon a sound medical foundation, morality would draw strength and conviction from medicine. That makes sense.

In recent years, we have been repeatedly told to "treat and not moralize." Such advice contributed momentum to the exhaustion of our moral environment and peopled our present generation of physicians with too many dehumanized practitioners. Emphasis on the adverse medical effects of current life-styles is good medical advice, not censure or moralizing.

There have been, in the last two to three years, a few small gratifying signs, here and there, of the medical profession speaking in behalf of the beneficial aspects of morality. It is particularly encouraging that *The Journal of the American Medical Association* (228:1117-1119, May 27, 1974) included in its pages E. Gray Dimond's commentary on the physician's role as a moral persuader. The cry for such a role is an old idea—resurrected, like numerous ones, from past medical history.

There is much that we can learn to our profit from the present medical crises. The tragic situation should make clear to us that morality is an asset of inestimable medical value to the preservation of our social fabric. Our active participation may even have a salutary indirect effect in stemming the inroads of state medicine.

EDWARD PALMER, MD
Lake Oswego, Oregon